Assembly Instructions

English

Grundig SAT Systems

# Head-End Digital Encoder

## HDE 210

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# Contents


**1 Safety regulations ..... 4**

**2 General information ..... 5**

2.1 Packing contents ..... 5
2.2 Meaning of the symbols used ..... 5
2.2 Technical data ..... 5
2.3 Description ..... 7
2.3.1 Software versions ..... 7

**3 Assembly ..... 8**

3.1 Installing the cassette ..... 8
3.2 Cassette overview ..... 8
3.3 Connecting the cassette ..... 9

**4 The control panel at a glance ..... 10**

4.1 Menu items ..... 10
4.2 Control panel ..... 10

**5 Programming ..... 11**

5.1 Programming procedure ..... 11
5.2 Programming the cassette ..... 13
Selecting the cassette ..... 14
Setting the Ethernet parameters ..... 14
Setting the IP address of the cassette ..... 15
Setting the address range (subnet mask) ..... 15
Setting the address of the gateway ..... 16
Setting the UDP port ..... 16
Selecting the output signal path ..... 16
Output signal path "**ASI**" ..... 17
Setting the ASI transfer rate ..... 17
Setting the ASI options ..... 17
Output signal path "**IP MPTS**"/"**IP SPTS**" ..... 18
Selecting the transmission protocol ..... 18
Setting the port number ..... 18
Defining the quantity of data packets ..... 19
Setting the forward error correction ..... 19
Setting the transmission channel ..... 19

Setting the output IP address ..... 20
Setting the input parameter ..... 20
Setting the bit rate of the video signal .....21
Setting the video signal type .....21
Setting the TV standard .....21
Setting the aspect ratio..... 22
Setting the sharpness ..... 22
Setting the teletext option..... 22
Setting the audio signal type and bit rate ..... 22
Setting the level of the audio signal..... 23
Setting the programme ID ..... 23
Setting the channel name..... 24
Setting the ASI station filter ..... 24
Setting the transport stream ID and ORGNET ID ..... 25
Saving settings ..... 26

**6 Final procedures..... 26**
6.1 Combination with other cassettes..... 26

# 1 Safety regulations

**Important information**

- Assembly, installation and servicing should be carried out by authorised electricians.
- Switch off the operating voltage of the system before beginning with assembly or service work or pull out the mains plug.
- Install the system so it will not be able to vibrate…
  - in a dust-free, dry environment
  - in such a manner that it is protected from moisture, fumes, splashing water and dampness
  - somewhere protected from direct sunlight
  - not within the immediate vicinity of heat sources
  - in an ambient temperature of 0 °C to +50 °C.
- Ensure that the head-end station is adequately ventilated. Do not cover the ventilation slots.
- Beware of short circuits
- No liability is accepted for any damage caused by faulty connections or inappropriate handling.
- Observe the relevant standards, regulations and guidelines on the installation and operation of antenna systems.
- Earth the SAT receiver in accordance with DIN EN 50083-1 / 60728-11 and VDE 0855 (earthing, equipotential bonding).
- Do not perform installation and service work during thunderstorms.
- **Test the software versions of the head-end station and the cassette and update them if necessary. The current software versions can be found at *"www.gss.de"*.**
- **For further information please read the assembly instructions for the head-end station used.**

**Take action to prevent static discharge when working on the device!**

**Electronic devices should never be disposed of in the household rubbish. In accordance with directive 2002/96/EC of the European Parliament and the European Council from January 27, 2003 which addresses old electronic and electrical devices, such devices must be disposed of at a designated collection facility. At the end of its service life, please take your device to one of these public collection facilities for proper disposal.**

# 2 General information

## 2.1 Packing contents

1 Cassette HDE 210
1 CD (assembly instructions)
1 Brief assembly instructions
1 BNC cable
1 LAN cable (RJ45)

## 2.2 Meaning of the symbols used

Important note

—> General note

• Performing works

## 2.2 Technical data

The devices meet the following EU directives:
73/23/EWG, 89/336/EWG
The product fulfils the guidelines and standards for CE labelling.

Unless otherwise noted all values are specified as "typical".

**CVBS Video Input:**

Standard: ..... DIN EN 50049-1
Input level: ..... 1 $V_{pp}$
Input impedance: ..... 75 Ω, nominal
Frequency range: ..... 20 Hz ... 5 MHz

**S-Video (Y/C) Input:**

Standard: ..... DIN EN 50049-1
Input level:
Y (Luminance) ..... 1 $V_{pp}$
C (Chrominance) ..... 1 $V_{pp}$
Input impedance: ..... 75 Ω, nominal
Frequency range: ..... 20 Hz ... 5 MHz

**Audio Input:**

Standard: ..... DIN EN 50049-1
Input level: ..... 500 $mV_{rms}$
Input impedance: ..... 10 kΩ
Frequency range: ..... 20 Hz … 15 kHz

**ASI Interfaces**

Standard: ..... DIN EN 50083-9
Format: ..... MPEG ISO IEC 13818-1
max. data rate ..... 108 Mbit/s
User data rate: ..... 2 … 90 Mbit/s
Impedance: ..... 75 Ω
Level (input / output): ..... 800 $mV_{pp}$ ± 10%
Rise/Fall Time: ..... < 1.2 ns (20-80%)
Reflexion loss (input): ..... > 17 dB (5 … 270 MHz)

**LAN Interface**

Standard: ..... 10/100/1000 MB/s
Transport streams: ..... SPTS (Single Programme Transport Stream), MPTS (Multi Programme Transport Stream)
Protocols: ..... UDP (User Data Protocol), RTP (Real-Time Transport Protocol)

**Connections:**

Audio inputs: ..... 4 Cinch sockets
Video inputs: ..... 2 Cinch sockets, 2 S-Video sockets (Mini-DIN)
LAN: ..... 1 RJ 45 socket
ASI input: ..... 1 BNC socket, 75 Ω
ASI output: ..... 1 BNC socket, 75 Ω
Connection strip (10-pin): ..... for supply voltages and control circuit
RS-232 socket: ..... serial update interface

## 2.3 Description

In the cassette HDE 210 two analogue audio and video signals are converted into MPEG2 data streams (transport streams).
The transport streams are emitted via the LAN interface or the ASI output.
The cassette is equipped with two stereo/audio inputs, two (S-)video inputs and one ASI data stream input. The fed in analogues signals are digitized and supplied to an encoder that encodes them in real time.
The stereo audio signals are transferred via an adjustable amplifier to the encoder. Encoding is done according to the MPEG 2 standard. The bit rates are adjustable. A transport stream fed via the ASI input socket will be inserted into the transport streams of the encoded analogous signals.

At the ASI output sockets (BNC) a transport stream is provided according to ISO/IEC 13818. Alternatively one IP MPTS data stream or two IP SPTS data streams (equipped with IP addresses) can be provided at the network socket.
The cassette supports data rates of 2 … 15 Mbit/sec.
It is intended for use in the head end stations STC 316, STC 1200, STR 19-8 and PST 19-1.

### 2.3.1 Software versions

**Cassette**
After activating the cassette the software version of the cassette is displayed (see page 14).

**Control unit**
To operate these cassettes the software version of the control unit must be "V41" or higher. Approx. 5 minutes after the last keypress the software version of the control unit is displayed.
If necessary, you can activate the indication of the software version of the control unit manually:

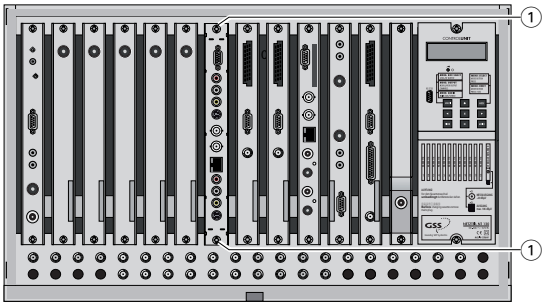
- Press any two keys on the control unit of the head-end station simultaneously until the display goes dark and the software version, e.g. "**V 41**" appears.

# 3 Assembly

## 3.1 Installing the cassette

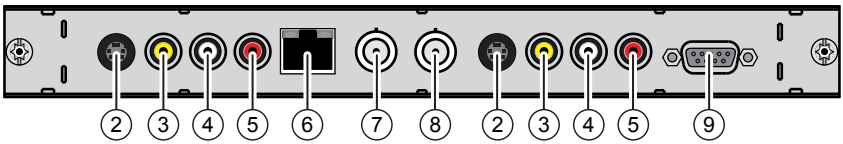
Before installing or changing a cassette unplug the power cable from the mains power socket.

- Remove the fastening screws (1) of an unoccupied slot from the bracket of the head-end station.
- Insert the cassette in this slot and push it into the housing.
- Align the cassette and apply slight pressure to connect it to the connections of the board and the HF bus bar.
- Fasten the cassette with the screws (1).




## 3.2 Cassette overview

Kanalzug "B" / *Channel strip* "B" Kanalzug "A" / *Channel strip* "A"

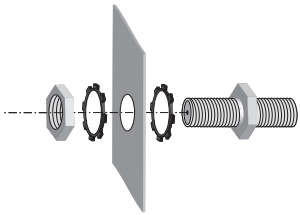



(2) S-Video input (Mini-DIN)
(3) Video input (Cinch)
(4) Audio input L (Cinch)
(5) Audio input R (Cinch)
(6) Ethernet socket (RJ45)
(7) ASI input (BNC)
(8) ASI output (BNC)
(9) RS232 socket (9-Pin-Sub-D)

### 3.3 Connecting the cassette

**To comply with the current EMC regulations, it is necessary to connect the lines leading in and out of the head-end station using cable terminals.**
**When mounting the cassette in a head-end station which is installed in a 19" cabinet (e.g. STR 19-8 or PST 19-1), make sure the connections leading in and out for the 19" cabinet are made using cable terminals.**

- Insert the required number of cable terminals in the openings provided in the head-end station or in the 19" cabinet.
  —> Cable terminals are commercially availiable and not included in the scope of delivery.



Tighten the nuts on the cable terminals until the teeth on the lock washer have penetrated the exterior coating and a good connection is made between the housing and cable terminals.

- Connect the peripheral devices via cable terminals to the input sockets "**Video**" (3) or "**S-Video**" (2), "**Audio R**" (5) and "**Audio L**" (4) of the channel strips "**A**" and "**B**".
  —> connect a mono audio signal to input "**Audio L**" (4).
- Connect the ASI input (7) and the ASI output (8) to the peripheral devices - or
- connect the LAN socket (6).
- Connect the head-end station to the mains.

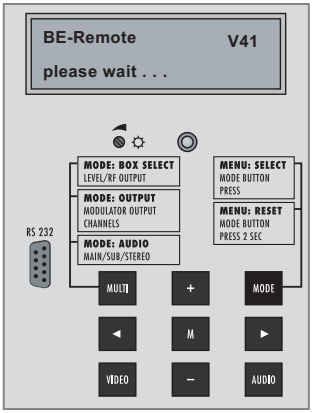
**Note:**
The "RS-232" socket (9-pin Sub-D) is for updating the operating software of the cassette using a PC or notebook. Use the "BE-Flash" software as the update software. You can find the current operating software of the cassette on the website "***www.gss.de***".

# 4 The control panel at a glance

## 4.1 Menu items

Program the cassette using the buttons on the control unit of the head-end station. The two-line display of the control unit then shows the menus.
Use the **MODE** key to select the following main menu items:

- Cassette
- Ethernet
- Output
- Input
- ASI
- TS/ONID




## 4.2 Control panel

The key pad on the head-end station is used to scroll through the menus:

**MODE** scrolls forward through the menus.

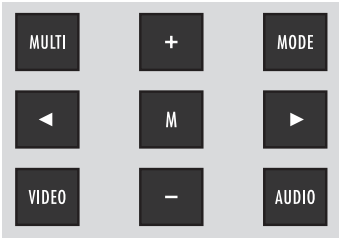
**AUDIO** scrolls backward through the menus.

**◄**/**►** select parameters in the menus

**►** selects sub-menus

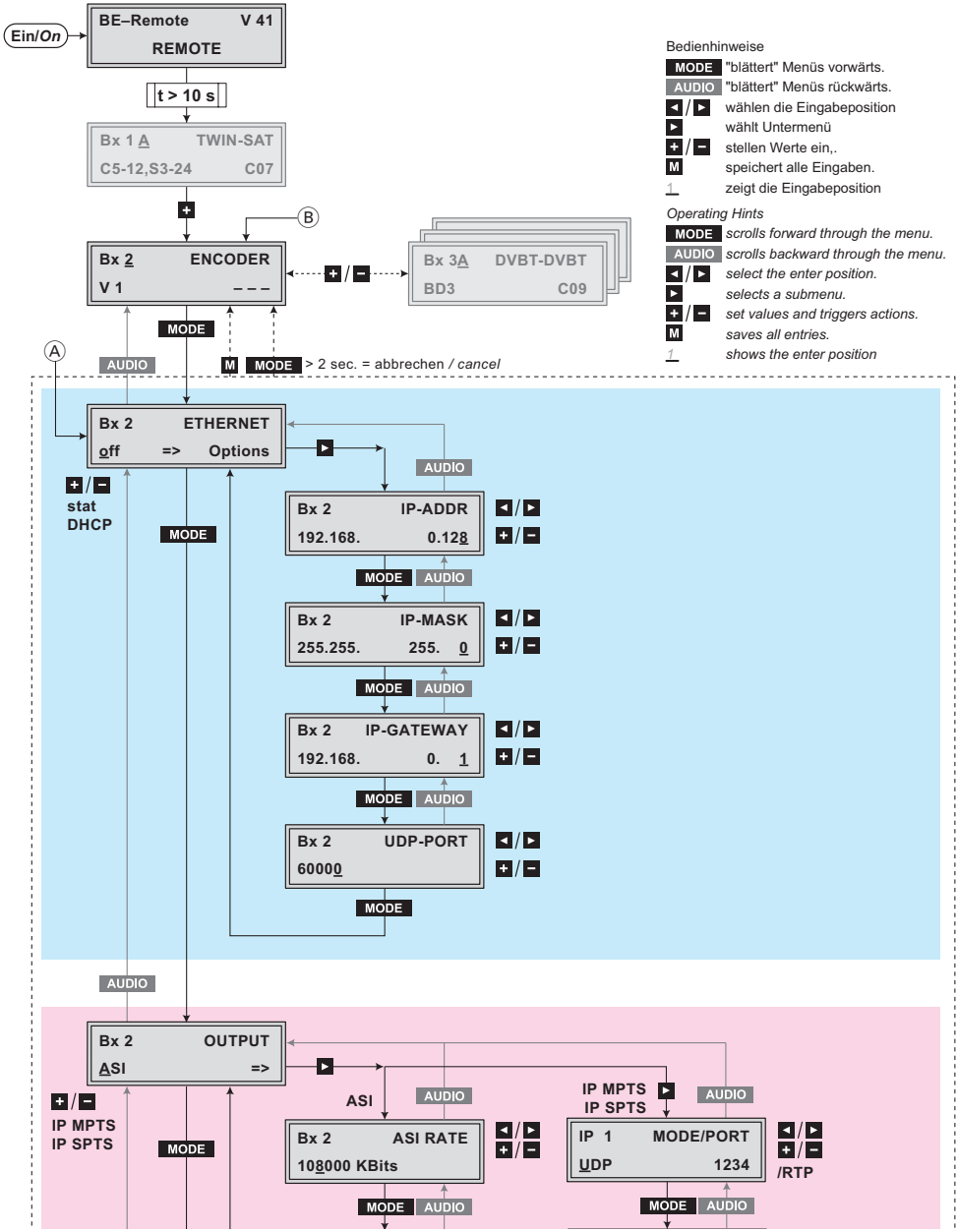
**+**/**-** set values,.

**M** saves all entries.



# 5 Programming

## 5.1 Programming procedure

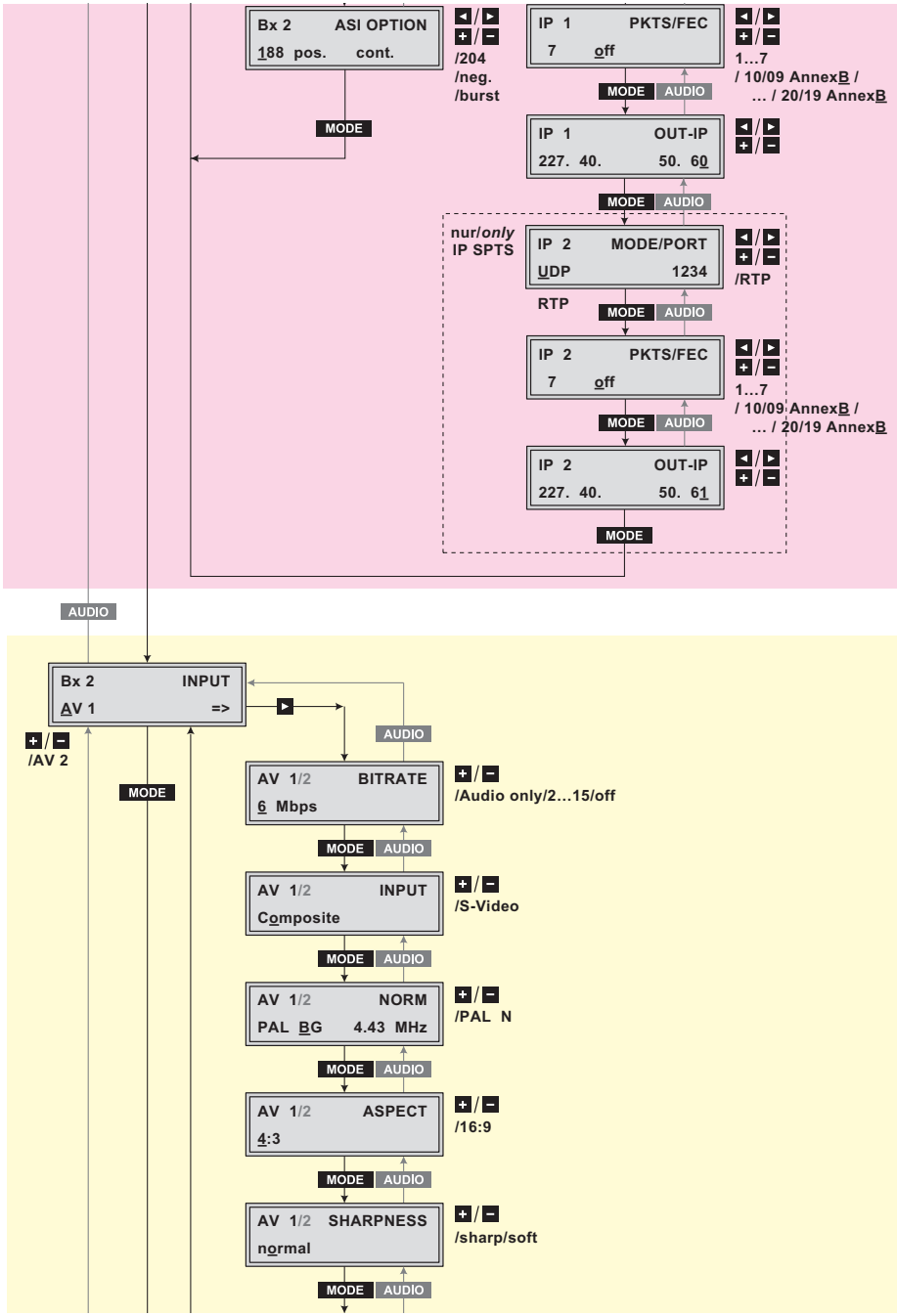


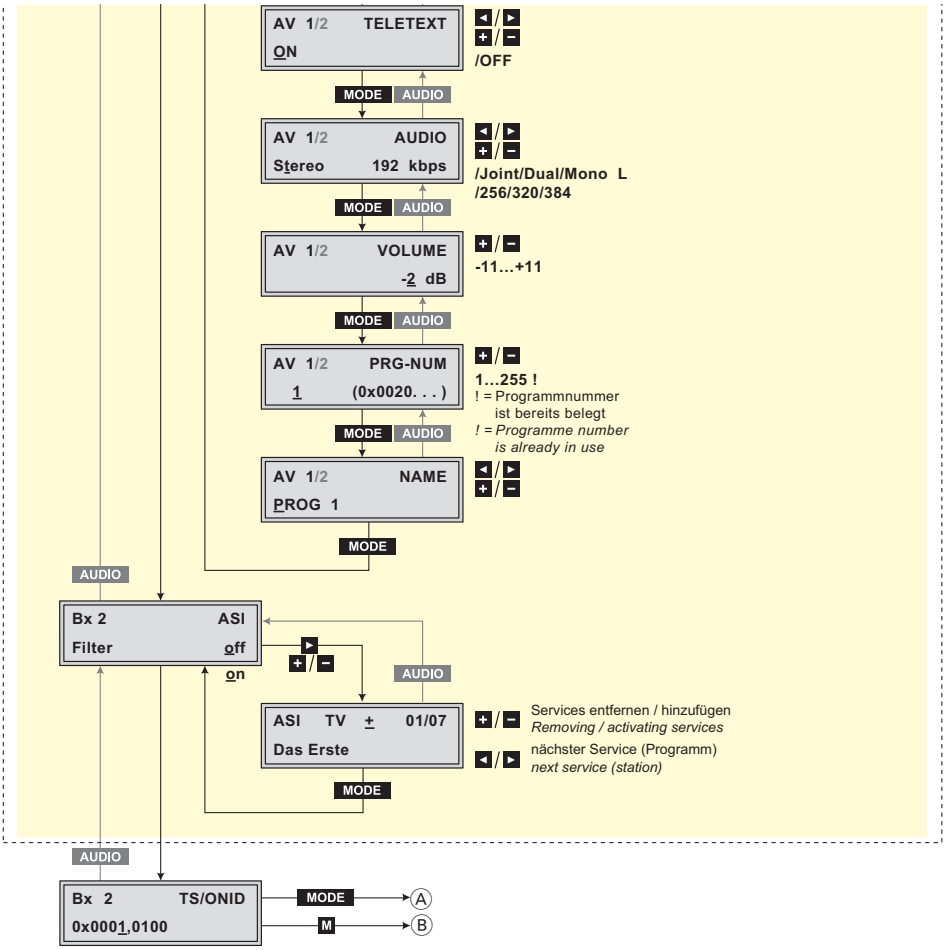

Bedienhinweise

| | |
|---|---|
| MODE | "blättert" Menüs vorwärts. |
| AUDIO | "blättert" Menüs rückwärts. |
| ◄ / ► | wählen die Eingabeposition |
| ► | wählt Untermenü |
| + / – | stellen Werte ein,. |
| M | speichert alle Eingaben. |
| 1 | zeigt die Eingabeposition |

*Operating Hints*

| | |
|---|---|
| MODE | *scrolls forward through the menu.* |
| AUDIO | *scrolls backward through the menu.* |
| ◄ / ► | *select the enter position.* |
| ► | *selects a submenu.* |
| + / – | *set values and triggers actions.* |
| M | *saves all entries.* |
| 1 | *shows the enter position* |


Bx 2 ASI OPTION
188 pos. cont.
/204
/neg.
/burst
IP 1 PKTS/FEC
7 off
1...7
/ 10/09 AnnexB /
... / 20/19 AnnexB
MODE
AUDIO
IP 1 OUT-IP
227. 40. 50. 60
nur/only
IP SPTS
IP 2 MODE/PORT
UDP 1234
/RTP
RTP
IP 2 PKTS/FEC
7 off
IP 2 OUT-IP
227. 40. 50. 61
Bx 2 INPUT
AV 1 =>
/AV 2
AV 1/2 BITRATE
6 Mbps
/Audio only/2...15/off
AV 1/2 INPUT
Composite
/S-Video
AV 1/2 NORM
PAL BG 4.43 MHz
/PAL N
AV 1/2 ASPECT
4:3
/16:9
AV 1/2 SHARPNESS
normal
/sharp/soft



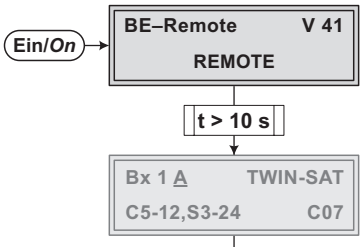

## 5.2 Programming the cassette

—> Pressing the **MODE** button for longer than 2 seconds cancels the programming procedure. This takes you back to the program item "Selecting the cassette" from any menu. Any entries that have not been saved are reset to the previous settings.

—> Entries in the menus can be saved by pressing the **M** key. You are taken back to the "Selecting the cassette" menu item.

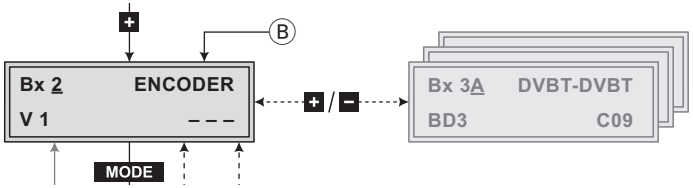
—> The parameters and functions to be set are underlined (Cursor).

- Switch on the head-end station.
  —> The display shows the software version (e.g. V 41).
  —> The processor reads the cassettes´ data (approx. 10 seconds).




**Selecting the cassette**

- If necessary select the cassette to be programmed by repeatedly pressing the **+** button (e.g. **Box 2**).
  —> The display shows e.g. the menu "**Bx 2 ENCODER**":
  "**Bx 2**" stands for slot 2
  "**ENCODER**" type of cassette
  "**V 1**" software version of the cassette




- Press the **MODE** button.
  —> The "Setting the Ethernet parameters" – "**ETHERNET**" menu is activated.

- If you do not want to do Ethernet settings, press the **MODE** button. —> The "Select the output signal path" – "**OUTPUT**" menu is activated (page 17).

**Setting the Ethernet parameters**

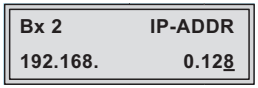
In this menu you specify whether the Ethernet parameters for the prospectively intended control of the cassette are entered …
—> automatically by a connected server ("**DHCP**"),
—> manually via the menu ("**stat**")
—> oder whether you will not use the Ethernet output ("**off**").
To assign the cassette uniquely, each IPTV cassette must be allocated its own IP address.

- Press the + / - buttons to select …
  – manual setting ("**stat**") of the Ethernet parameter,
  – automatic setting ("**DHCP**") of the Ethernet parameter or
  – to deaktivate Ethernet ("**off**").

- Press the ► button to activate the setting options ("Options").
  —> The "Setting the IP address of the cassette" – "**IP-ADDR**" menu is activated.

### Setting the IP address of the cassette

If you choose to enter the Ethernet parameters manually, set the IP address of the cassette in this menu. If "**DHCP**" is selected, the "**IP-ADDR**", "**IP-MASK**" and "**IP-GATEWAY**" sub-menus display the parameters that were assigned automatically by a connected server. If a server is not connected, " 0. 0. 0. 0*" appears in the corresponding menu. The star " * " in the display means that the data is provided by a DHCP server.

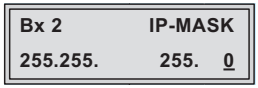



- Use the ◄ / ► buttons to select the digits of the IP address displayed to be set and use + / - to set the IP address wished.

- Press the MODE button.
  —> The "Setting the address range (subnet mask)" – "**IP-MASK**" menu is activated.

### Setting the address range (subnet mask)

In this menu you define the address range for the cassettes connected to the LAN network.

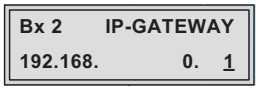



- Use the ◄ / ► buttons to select the digit of the subnet mask displayed to be set and use + / - to set the subnet mask wished.

- Press the MODE button.
  —> The "Setting the gateway address" – "IP-GATEWAY" menu is activated

### Setting the address of the gateway

The address of a gateway (server) can be set in this menu. If no gateway is used you can skip this setting.

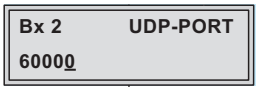



- Use the ◄/► buttons to select the digit of the IP address displayed to be set and use + / - to set the IP address wished.

- Press the MODE button.
  —> The "Setting the UDP port" – "**UDP-PORT**" menu is activated.

### Setting the UDP port

The UDP port setting is required if the cassette needs to be reached externally for remote maintenance.




- Use the ◄/► buttons to select the digit of the port number displayed to be set and use + / - to set the port number wished ("**0**" … "**65535**").

- Press the MODE button.
  —> Return to the start menu of "Setting the Ethernet parameters"

- Press the MODE button.
  —> The "Selecting the output signal path" – "**OUTPUT**" menu is activated.

- If you do not want to do output settings, press the MODE button. —> The "Setting the input parameter" – "**INPUT**" menu is activated (page 20).

### Selecting the output signal path

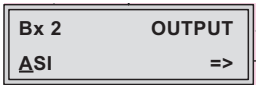
In this menu you define the signal path of the output transport streams.

- Use the + / - buttons to set the signal path wished.

—> Output signal path "**IP MPTS**"/"**IP SPTS**" see page 18.

### Output signal path "ASI"

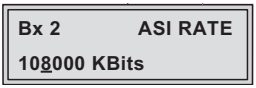
In this setting the output transport stream is provided via the ASI output. For this please also note chapter 6.1 "Combination with other cassettes".




- Press the ▶ button.
  —> The "Setting the ASI transfer rate" – "**ASI RATE**" menu is activated.

### Setting the ASI transfer rate

In this menu you set the transfer rate for the ASI component connected (incl. stuffing - filled up user data rate).
For this setting please take the required information from the documentation (technical data) of the ASI component to be connected.




- Use the ◀/▶ buttons to select the digits to be set for the transfer rate then use the +/- buttons to set the transfer rate wished..

- Press the MODE button.
  —> The "Setting the ASI options" – "**ASI OPTION**" menu is activated.

### Setting the ASI options

In this menu you define the size of the data packets, their polarity and the type of transmission.
For this setting please take the required information from the documentation (technical data) of the ASI component to be connected.

- Press the +/- buttons to set the size of the data packets ("**188**" or "**204**" bits).

- If the polarity of the data to be transmitted has to be changed, press the ◀/▶ to select "**pos.**" (positive – standard) and using the +/- buttons set to "**neg.**" (negative).

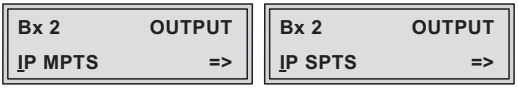
- To change the type of transmission press the ◄/► buttons to select "**cont.**" (continuous – standard) and using the + / - buttons set to "**burst**".
  —> Setting "**cont.**"
  The data packets of the user data are collected to a great data packet in the transport stream.
  —> Setting "**burst**"
  The data packets of the user data are spaced out evenly in the transport stream.

- Press the **MODE** button.
  —> Return to the start menu of "Selecting the output signal path"

**Output signal path "IP MPTS"/"IP SPTS"**

In this setting the output transport stream is provided via the Ethernet socket.
If "**IP MPTS**" (**I**nternet **P**rotocol **M**ulti **P**rogramme **T**ransport **S**tream) is selected, all services (programmes) fed in via the AV1, AV2 and ASI inputs are provided in one multi programme transport stream with one IP address.
If "**IP SPTS**" (**I**nternet **P**rotocol **S**ingle **P**rogramme **T**ransport **S**tream) is selected, the signal from input
- AV1 is provided in one single programme transport stream with one output IP address (IP 1).
- AV2 is provided in one single programme transport stream with one output IP address (IP 2).

- Press the + / - buttons to select the signal path wished.




- Press the ► button.
  —> The "Selecting the transmission protocol, setting the port number" – "**MODE / PORT**" menu is activated.

**Selecting the transmission protocol**

**Setting the port number**

In this menu you can define the transmission protocol and the port number.

Selecting the transmission protocol

- Press the ► button to select "**UPD**".
- Using the **+**/**-** buttons to select the transmission protocol wished:

"**UDP**"– The "User Datagram Protocol" is for the connectionless (without handshake) transmission of data to a certain application. The port number of the service is also sent which the data should obtain.

"**RTP**" – The "Real-time Transport Protocol" is for continuously transmitting multimedia data streams in an IP network. Unlike UDP, the header is transmitted which makes the data transmission more robust.

Setting the port number

- Using the ◄/► buttons select the digit of the port number displayed to be set.
- Using the **+**/**-** buttons set the port number wished.

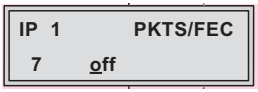
- Press the **MODE** button.
  —> The "Defining the quantity of data packets, setting the forward error correction, setting the transmission channel" – "**PKTS / FEC**" menu is activated.

**Defining the quantity of data packets**

**Setting the forward error correction**

**Setting the transmission channel**

In this menu you set the quantity of the data packets to be transmitted, the forward error correction FEC and the transmission channel. If the forward error correction is used the data to be transmitted is encoded in a redundant way so that the addressee can correct transmission errors.




Defining the quantity of data packets

- Press the ◄ button to select the data packet digit.
- Using the **+**/**-** buttons define the quantity of MPEG data packets in one IP data packet ("**1**" … "**7**").

Setting the forward error correction

- Press the ► button to select the forward error correction.

—> In position "**off**" the forward error correction (FEC) is switched off.

- Using the **+**/**-** buttons set the value of the FEC wished ("**off**", "**10/9**" … "**20/19**").

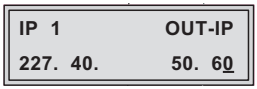
Setting the transmission channel

- Press the ► button to select"**Annex...**".
- Use the **+**/**-** buttons to set the transmission channel wished ("**AnnexA**" / "**AnnexB**").

- Press the **MODE** button.
  —> The "Setting the output IP address" – "**OUT-IP**" menu is activated.

**Setting the output IP address**

In this menu you set the output IP address for the selected transport stream.




- Press the ◄/► buttons to select the digit of the IP address to be set.
- Using the **+**/**-** buttons set the IP address wished.

As by setting **IP SPTS** two transport streams are provided, the settings "MODE/ PORT", "PKTS/FEC" and "OUT-IP" must be done two times (IP 1 and IP 2). After the settings for IP 1 button **MODE** will take you to the settings for IP 2.

⚠ Allocate different IP addresses to the transport streams!

- Press the **MODE** button.
  —> Return to the start menu of "Selecting the output signal path"

- Press the **MODE** button.
  —> The "Setting the input parameter" – "**INPUT**" menu is activated.

- If you do not want to do input settings, press the **MODE** button. —> The "Setting the ASI station filter" – "**ASI**" menu is activated (page 24)

**Setting the input parameter**

In this menu you set the input parameters for the inputs AV 1 and AV 2.

- Using the **+**/**-** buttons select the corresponding input.

- Press the ► button.
  —> The "Setting the bit rate of the video signal " – "**BITRATE**" menu is activated.

### Setting the bit rate of the video signal

You can use this menu to set the bit rate at which the video signal is to be encoded. The higher the bit rate, the higher the quality of the transmitted video signal.

- Use the + / - buttons to set the bit rate of the video signal ("**2.0**" … "**14.0**" Mbit/sec). If only audio signals are to be encoded, set the bit rate to "**Audio only**". In setting "**Off**" the input is switched off.

- Press the MODE button.
  —> The "Setting the video signal type" – "**INPUT**" menu is activated.

### Setting the video signal type

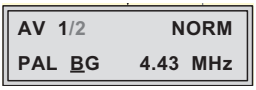
You may set whether you would like to input a video composite signal "**Composite**" (CVBS) via the yellow Cinch socket or a S-video signal "**S-Video**" (Y/C) via the Mini DIN socket in this menu.

- Use the + / - buttons to set the desired type of video signal.

- Press the MODE button.
  —> The "Setting the TV standard" – "**NORM**" menu is activated.

### Setting the TV standard

In this menu the TV standard of the input signal is to be set - "**PAL BG 4.43 MHz**" or "**PAL N 3.58 MHz**".

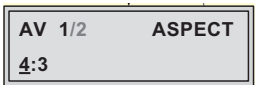



- Use the + / - buttons to set the TV standard wished.

- Press the **MODE** button.
  —> The "Setting the aspect ratio" – "**ASPECT**" menu is activated.

### Setting the aspect ratio

In this menu the aspect ratio of the input signal is to be set - "**16:9**" or "**4:3**".




- Use the **+** / **-** buttons to set the aspect ratio wished.

- Press the **MODE** button.
  —> The "Setting the sharpness" – "**SHARPNESS**" menu is activated.

### Setting the sharpness

In this menu the you set the sharpness wished - "**normal**", "**sharp**" or "**soft**".

- Use the **+** / **-** buttons to set the sharpness wished.

- Press the **MODE** button.
  —> The "Setting the teletext options" – "**TELETEXT**" menu is activated.

### Setting the teletext option

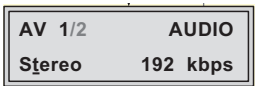
In this menu you switch teletext "**ON**" or "**OFF**".

- Use the **+** / **-** buttons to switch teletext on or off ("**ON**" or "**OFF**").

- Press the **MODE** button.
  —> The "Setting the audio signal type and bit rate" – "**Audio**" menu is activated.

### Setting the audio signal type and bit rate

In this menu you set the signal type and the bit rate the audio signal is to be encoded.




- Use the **+**/**-** buttons to set the signal type – "**Stereo**", "**Joint Stereo**" (subjectively improved stereo impression), "**Dual Channel**" (dual channel sound) or "**Mono L**" (left) - of the audio signal.

- Use the **►** button to select the bit rate setting and set it as wished with the **+**/**-** buttons ("**192**" … "**384**" kbit/sec).
  The higher the bit rate, the higher the quality of the transmitted audio signal. Bear in mind that when the bit rate is increased, the bandwidth of the output signal is also increased.

- Press the **MODE** button.
  —> The "Setting the level of the audio signal" –"**VOLUME**" menu is activated.

### Setting the level of the audio signal

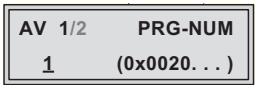
In this menu you can adapt the volume of this audio input.

- Use the **+**/**-** buttons to set the desired volume ("**– 11dB**" … "+ **11dB**").

- Press the **MODE** button.
  —> The "Setting the programme ID" –"**PRG-NUM**" menu is activated.

### Setting the programme ID

In this menu you can set the programme ID of the input.




- Use the **+**/**-** buttons to set the programme ID wished ("**1**" … "**255**").
  A "**!**" behind the programme ID indicates that this ID is already in use.

- Press the **MODE** button.
  —> The "Setting the programme name" – "**NAME**" menu is activated.

### Setting the channel name

In this menu the channel name of the input can be set.

- Use the ◄/► buttons to select the digit of the channel name to be set and use +/- buttons to set the desired character (" ", "0…9", "A…Z", "Ä", "Ö", "Ü", "a…z", "ä", "ö", "ü", "+", "-", "/", ":" or "*").

- Press the MODE button.
  —> Return to the start menu of "Setting the input parameter"

- Use the +/- buttons to select the 2nd AV input and carry out its settings analogous to that of the 1st AV input,

or

- Press the MODE button.
  —> The "Setting the ASI station filter" – "**ASI**" menu is activated.

- If you do not want to do station filter settings, press the MODE button. —> The "Setting the TS ID and ORGNET ID" – "**TS/ONID**" menu is activated (page 25)

- Press the ► button.

### Setting the ASI station filter

—> All services from the ASI input will be read, and then displayed with name and type of the service..
—> If no services is found, the following message will appear in the display: "**no Service**". In this case, check previously adjusted settings for the cassette and the components connected to the ASI input.
—> The display shows e.g.:

**Meaning of the indicators in the example:**

"**ASI**" ASI station filter
"**TV**" "Television" (type of service)
" **+** " The currently selected service is activated.
"**01/07**" The 1st of 7 services is being displayed.
"**Das Erste**" Name of the service

**Further possible terms displayed:**

"**RA**" "Radio" (type of service)
For radio stations, the background of the screen of the connected TV or test receiver is darkened.
" **–** " The currently selected service is switched off.
" * " The star means that the service selected is encoded.
—> If a service number (e.g. "**131**") appears instead of "**TV**" or "**RA**", this indicates that an unnamed service or an undefined transport stream is being received.

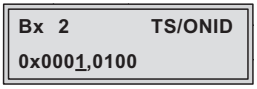
- Use the ◄/► buttons to call up the services in sequential order, then use **+**/**-** buttons to activate (indicated by " **+** ") or to remove them (" **–** ").
  —> Pressing the **MULTI** button all services can be activated or deactivated.

- Press the **MODE** button.
  —> Return to the start menu of "Setting the ASI station filter"

- Press the **MODE** button.
  —> The "Setting the transport stream ID and ORGNET ID" – "**TS/ONID**" menu is activated.

**Setting the transport stream ID and ORGNET ID**

If the input signals are encoded to a separate transport stream (e.g. setting of the output signal path -> ASI without any ASI input signal), a new ORGNET-ID must be assigned to the transport stream.




- Use the ◄/► buttons to select the digit of the hexadecimal number to be set and use the **+**/**-** buttons to set the desired character.

**Saving settings**

- Press the **M** button.
  —> Return to "Selecting the cassette" (page 14).
  —> The settings are saved.

**Note:**

– By pressing the **MODE** button, you will be returned to the menu item "Setting the Ethernet parameters" (page 14) **without** saving the programmed data.

# 6 Final procedures

⚠ **After installing the head-end station, upgrading accessories or installing cassettes it is necessary to tighten all cable connections, cable terminals and cover screws in order to maintain compliance with current EMC regulations securely.**

- Securely tighten the cable bolted connections using an appropriate open-ended spanner.
- Mount the front cover (s. assembly instructions of the head-end station).

## 6.1 Combination with other cassettes

- The transport stream provided at the ASI output can be transferred via the ASI input of a following cassette to a modulator. If no signal is supplied at the tuner inputs of this cassette, the following settings must be made for INROUTE and OUTROUTE:
  For example cassette HDTV 1000 ASI LAN:
  At INROUTE setting "A+ASI=1 B+ASI=2" OUTROUTE must be set to "1=>ASI **ASI=>MA**" or "2=>ASI **ASI=>MB**".
  or
  at INROUTE setting "A+B+ASI=1 ASI=2" OUTROUTE must be set to "1=>ASI **ASI=>MA**".

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